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Approved For Release 2003/08/13 : CIA-RDP85-00988R000500090039-7

SUGGESTION EVALUATION REPORT

TO: Executive Secretary
Suggestion Awards Committee

SUGGESTION NO.

79-347

SUSPENSE DATE

INSTRUCTIONS: Please complete this form in detail to guide the Suggestion Awards Committee in making a final determination of the merits of this suggestion. Retain third copy.

1. ACTION RECOMMENDED ☐ ADOPT ☒ DECLINE ☐ OTHER (Specify):

2. REASONS FOR RECOMMENDATION (If more space is needed, use plain paper)

A representative of Controlled Environment Systems, Inc. met with Agency and GSA officials to demonstrate the Energy Conserving Automatic Light Output (ECALO) system. The testing was done on an overcast day in a room with windows. The ECALO system worked at maximum intensity with the blinds fully opened and fully closed. The largest cost savings occur when the ECALO system is assisted by bright daylight conditions. By the representative's own admission, the ECALO system would not be suitable for corridor lighting.

The results of this meeting indicated that while the ECALO system may prove beneficial for certain applications, it would appear to be unsuitable for mass retrofitting of an existing building such as Headquarters. Moreover, the expenditure which would be required in order to modify the numerous light fixtures in the Headquarters Building could not be justified by the energy savings to be realized.

The suggestor's concern for energy conservation is appreciated even though this suggestion must be declined.

Distribution:

Orig & 1 - ES/SAAC
① - OL/P&PS
1 - OL/LSD

STATINTL OL/LSD [redacted] 15 Nov 79)

OL 9 2929a

3. TANGIBLE FIRST-YEAR SAVINGS (Man-hours, material, equipment, etc.)

4. INTANGIBLE BENEFITS (See guide on reverse side of third copy)

5. WHAT OTHER OFFICES, DIVISIONS, ETC. MIGHT ALSO USE THIS IDEA?

DATE

SIGNATURE OF EVALUATOR (Type name and title)

STATINTL

Chairman, Internal Suggestion
Awards Panel, OLFORM
2-70

244b

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(43)

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TITLE OR SUBJECT OF SUGGESTION Energy Conserving Automatic Light Output (ECALO)	SUGGESTION NO. 77-347
PRESENT METHOD Fluorescent lighting systems are typically designed with 25-40% excess input energy to allow for degradation in light output due to maintenance factors and fluorescent bulb decay. Lighting systems are also designed to produce recommended illumination levels regardless of external light sources and each watt of excess lighting causes the expenditure of about one-half excess watt of air conditioning power when the air conditioning system is operating.	
I SUGGEST Installation in all Agency buildings of the ECALO system manufactured by CESI of Rockville, MD. The ECALO system is small and can be installed in present lighting fixtures in about 15 minutes. With ECALO added to a standard ballast it is no longer necessary to have excess starting light to accommodate maintenance and aging factors. With the ECALO system the electric arc is started at a lower level which results in immediate energy savings and correspondingly less lamp wear. In time, as the light begins to decline due to phosphor degradation, ECALO senses this decline through a light feedback sensor and advances the arc current to hold the light at the set level. Thus, the average electrical power consumed over the lamp life span is reduced. The light sensor also automatically adjusts lamp output to allow for external light sources in maintaining the pre-set light level. Besides the obvious saving of light energy there would be a corresponding saving of cooling energy through the reduced use of the air conditioning system.	
ADVANTAGES Energy savings with ECALO could theoretically amount to 70% of the total power budget in large buildings. Realistically, the ECALO will average a 50% energy saving and thus pay for itself in about 2 years. Details on these figures and further economic and technical considerations are set forth in a report by CESI. An independent agency was asked to evaluate the system and concluded that CESI "has been very reasonable in their energy saving estimates."	

FORM 244
(3/76)USE PREVIOUS
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SECRET

ROUTING AND RECORD SHEET

SUBJECT: (Optional)

Employee Suggestion

FROM:

OL/LSD

3E14 Headquarters

EXTENSION

NO.

79-347

DATE

STAT

TO: (Officer designation, room number, and building)

DATE

OFFICER'S INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

1. GSA Buildings Manager
1E12 Headquarters

2.

4.

5. Executive Secretary
Suggestion and Achievement

6. Awards Committee
915 Ames Building

7.

8.

9.

10.

11.

12.

13.

14.

15.

For your concurrence.

FORM 3-62

610

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ROUTING AND RECORD SHEET

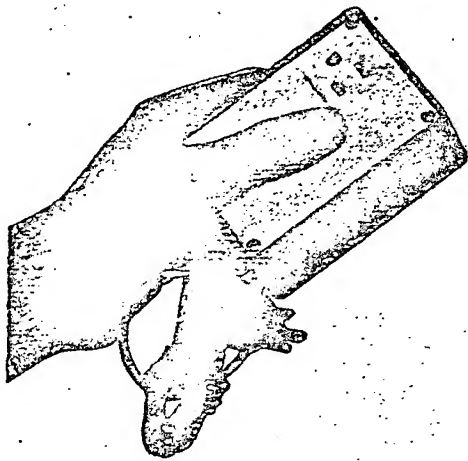
SUBJECT: (Optional)				
FROM: EXECUTIVE SECRETARY SUGGESTION AND ACHIEVEMENT AWARDS COMMITTEE 915 AMES BUILDING		EXTENSION	NO. 79-347	
			DATE 16 July 1979	
TO: (Officer designation, room number, and building)		DATE	COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)	
		RECEIVED FORWARDED OFFICER'S INITIALS		
1.		7/17	A	<p>For evaluation, please</p> <p>1 to 4 Tom</p> <p>Pls evaluate</p> <p>4-5</p> <p>Pls take this one on for us. Out of LSD's purview. Tks.</p> <p>GerB</p> <p>OL 9 2929</p>
2.				
3.				
4.	C/LSD	7-19	SB	
5.	C/HCB/RECD			
6.				
7.	C/POPS			
8.				
9.				
10.				
11.				
12.	EXECUTIVE SECRETARY SUGGESTION AND ACHIEVEMENT AWARDS COMMITTEE 915 AMES BUILDING			
13.				
14.				
15.				

STATINTL

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NASA PATENT 4,052,648



NASA Hits

A new invention by America's space agency will help all Americans save energy and make some companies very wealthy.

Exxon has it. So does about a dozen other manufacturers. And if our hunches are correct, a new space-age product invented by NASA may not only save Americans millions of dollars but make fortunes for the companies that sell it.

The new NASA invention uses the latest space-age technology to save energy. Your refrigerator for example, is a major energy user. With this new device, your refrigerator compressor will run quieter, there will be considerably less heat generated from the motor, and it will run more efficiently saving at least 30% in energy.

The invention requires no installation. Just plug it into your outlet and plug your refrigerator into the device.

OVER PRICED UNIT

But there's a catch. Most manufacturers sell the device for as much as \$200. Using it with your refrigerator, it will take many years before it will pay dividends. On a powerful motor, however, the device will pay for itself in a matter of months.

Manufacturers who have announced their units are selling them like hot cakes. Although you may have heard a great deal of publicity about the product, you may not have seen any advertising because most manufacturers are currently sold out.

Watch for it! We predict great success for all those associated with the product. The power-saving device invented by NASA is a big hit. It will grow in popularity and save energy and make many companies very successful.

A SMALL COMPANY

There is one small company however, that is credited with improving the device and developing it for the consumer market. Called ERI (Electronic Relays, Inc.) the company has developed several models to service specific products such as a refrigerator, a washing machine, dishwasher, swimming pool and a typewriter.

This small company actually improved the NASA invention by adding its own refinements. ERI had a great deal of experience in solid state relays which use TRIACs and integrated circuits—two important elements in the NASA invention. A TRIAC is a bidirectional thyristor which controls AC from a single control input. TRIACs also produce a great deal of heat.

ERI's experience taught them how to control the TRIAC and its heat dissipation and thus they were able to reduce the device's cost through more efficient handling of the heat problem. They were already one of the nation's largest purchasers of TRIACs, thus

their costs were already low.

NATIONAL PUBLICITY

They called their product, the Power Chopper and sent a sample to a national magazine for their review. In several tests, the device out-performed even the claims made by the manufacturer and the magazine ran a glowing article on their findings.

The manufacturer felt that the product might at first be misleading. Although it does save 30% on energy and in many cases up to 60%, ERI felt most consumers would expect a 30% reduction in their total electric bill—which of course the product will not do. Consumers will only get a 30% savings on the particular appliance used with the Power Chopper.

STILL PESSIMISTIC

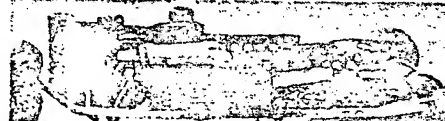
The manufacturer also felt that the product was primarily for the industrial market—restaurants with large banks of refrigerators. The consumer must wait over one year before the device would pay for itself. And finally, the manufacturer did not feel that the consumer would respond in great numbers to the article which ran in the July, 1979 edition of a popular magazine.

Well, the consumer did respond. So much so that the small manufacturer, with absolutely no marketing staff, was buried with mail. The president of ERI called JS&A to help him out.

TEST ONE YOURSELF

We agreed to offer the Power Chopper to the consumer market for \$29.95—a major price breakthrough for the product.

Even if Exxon lowers their prices considerably, they'll never come close to the low cost of the Power Chopper. ERI's expertise with the TRIAC and JS&A's direct-to-consumer marketing, make the new NASA invention a practical power-saving accessory for every home.



The sophisticated electronics of the Power Chopper consist of a TRIAC, two integrated circuits and several solid-state devices.

We urge you to simply test just the refrigerator module. Order one from JS&A on a 30-day no-obligation trial. In the meantime, while you are waiting for your unit, feel the heat generated from the bottom of your refrigerator. Listen to the sound level of your compressor.

When the Power Chopper arrives, plug it in and notice how much quieter and cooler your refrigerator runs. See how much less the compressor must run. The compressor not

only will run more efficiently but will save energy every day you use it.

AWARD WINNER

If after 30 days you are not convinced that the Power Chopper will save you energy and money while making your refrigerator run smoother, then just unplug it and send it back for a prompt and courteous refund, including the \$2.50 postage and handling. But if you've definitely noticed the difference, you'll want to purchase more units for the remainder of your motor-based appliances.

JS&A feels that ERI's technology, their improved NASA design and their low manufacturing costs will catapult them to the forefront of those introducing the new NASA invention. ERI's Power Chopper is one of the nation's major new innovative products and just recently won the Industrial Research IR-100 Award.

To order your Refrigerator Power Chopper, send \$29.95 for each unit plus \$2.50 for postage and handling to JS&A Group, Inc., One JS&A Plaza, Northbrook, Illinois 60062. (Illinois residents please add 5% sales tax.) Credit card buyers may call our toll-free number below. We'll send your Refrigerator Power Chopper, one-year limited warranty and you'll be ready to save. If you wish to order additional units for other appliances at \$29.95, you may, but we suggest you test the refrigerator module first and totally convince yourself.

GOVERNMENT REBATE

Purchase of the Power Chopper entitles you to a full 15% energy tax credit on your income tax return. It's like having the government give you a \$4.50 rebate.

JS&A is America's largest single source of space-age products—further assurance that your purchase will be backed by service for years to come.

NASA technology was responsible for the development of the integrated circuit and many other space-age products. Their latest product could not have been developed at a better time. Start saving and order a Power Chopper at no obligation, today.

JS&A PRODUCTS THAT THINK

Dept. SA One JS&A Plaza
Northbrook, Ill. 60062 (312) 564-7000
Call TOLL-FREE 800 323-6400

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